

### CLAIMS

What is claimed is:

1. A telephone, comprising:  
  
a ring detect circuit operable to detect electric ring signals received by tip and ring terminals of the telephone;  
  
a microprocessor configured to receive notification that electric ring signals have been detected by said ring detect circuit; and  
  
a ringer option switch having a crescendo setting that signals the microprocessor to generate ringer control signals.
2. The telephone of Claim 1, further comprising an audible ring generator configured to receive the ringer control signals and provide a succession of audible ring signals, wherein at least one audible ring signal in the succession of audible ring signals has a volume that is higher than a volume of a preceding audible ring signal in the succession when the ringer option switch is set at the crescendo setting.
3. The telephone of Claim 2 wherein the audible ring generator comprises a piezo-electric device, a speaker, or other suitable sound-producing device.
4. The telephone of Claim 1, further comprising a CODEC configured to receive a sequence of ringer control signals from said microprocessor and provide a corresponding sequence of signals for producing a corresponding sequence of audible

ring signals, wherein at least one audible ring signal in the sequence of audible ring signals has a volume that is higher than a volume of a preceding audible ring signal in the sequence when the ringer option switch is set at the crescendo setting.

5. The telephone of Claim 1, further comprising an audible ring generator configured to receive the ringer control signals and provide a succession of audible ring signals, a first audible ring signal of the succession having a minimum volume and subsequent audible ring signals of the succession having increasing volume levels.

6. A telephone, comprising:

a ring detect circuit operable to detect electric ring signals received by tip and ring terminals of the telephone;

a microprocessor configured to receive notification that electric ring signals have been detected by said ring detect circuit; and

crescendo setting means for signaling the microprocessor to generate a succession of ringer control signals corresponding to the detected electric ring signals, wherein a first ringer control signal of the succession is used to generate a first audible ring signal having first volume and subsequent ringer control signals of the succession are used to generate corresponding audible ring signals of increasing volume levels.

7. A telephone, comprising:

a ring detect circuit operable to detect electric ring signals received by tip and ring terminals of the telephone;

a microprocessor configured to receive notification that electric ring signals have been detected by said ring detect circuit;

a displayable menu system in communication with said microprocessor, said menu system having a menu key, which when activated provides a user with one or more ringer options, including a crescendo ringing option; and

an audible ringer device controlled by said microprocessor, said audible ringer device, upon the telephone's receipt of an incoming call, operable to generate a first audible ring signal having first volume followed by a succession of subsequent audible ring signals of increasing volume levels.

8. A telephone ringer apparatus, comprising:

an electronic telephone tone ringer configured to be coupled between tip and ring terminals of a telephone;

a ringer option switch coupled to said tone ringer having audible ring signal volume settings and a crescendo setting;

an audible ring signal volume controller coupled to said ringer option switch; and

an audible ring generating device.

9. The telephone ringer apparatus of Claim 8, further comprising a ring counter coupled to said audible ring signal volume control operable to count the number of ring signals associated with an incoming telephone call.

10. The telephone ringer apparatus of Claim 9, further comprising an audible ring signal generating device coupled to said audible signal volume controller, said audible ring signal generating device operable to generate a first audible ring signal corresponding to a first electric ring signal of the incoming call and subsequent audible ring signals of increasing volume corresponding to subsequent electric ring signals of the incoming call.

11. A telephone, comprising:  
an electronic telephone tone ringer coupled between tip and ring terminals of the telephone;  
a ringer option switch coupled to said tone ringer having audible ring signal volume settings and a crescendo setting;  
an audible ring signal volume controller coupled to said ringer option switch; and  
an audible ring generating device.

12. A method of providing a telephone ringing signal, comprising:  
detecting a sequence of telephone electrical ring signals from a telephone line;  
generating a sequence of ringer control signals from said sequence of electrical ring signals; and  
generating a sequence of audible ring signals using said sequence of ringer control signals, at least one audible ring signal of said sequence of audible ring signals having a volume that is greater than a preceding audible ring signal of said sequence of audible ring signals.

13. A method of providing a telephone ringing signal, comprising:  
detecting a sequence of electrical ring signals arriving on a telephone line;  
determining whether a ringer option switch is set to a crescendo setting; and  
generating a sequence of audible ring signals corresponding to the detected sequence of electrical ring signals, a first of said sequence of audible ring signals having a first volume and one or more subsequent audible ring signals having a volume that is greater than the first volume.

14. The method of Claim 13, further comprising counting the number of detected electrical ring signals as the sequence of electrical signals arrives.

15. The method of Claim 14, further comprising generating a volume control signal for each detected electrical ring signal, each volume control signal having a value dependent upon the count number associated with the detected electrical ring signal.

16. An apparatus for providing a telephone ringing signal, comprising:  
means for detecting a sequence of telephone electrical ring signals from a telephone line;  
means for generating a sequence of ringer control signals from said sequence of electrical ring signals; and  
means for generating a sequence of audible ring signals using said sequence of ringer control signals, at least one audible ring signal of said sequence of audible ring

signals having a volume that is greater than a preceding audible ring signal of said sequence of audible ring signals.

17. An apparatus for providing a telephone ringing signal, comprising:  
means for detecting a sequence of electrical ring signals arriving on a telephone line;  
means for determining whether a ringer option switch is set to a crescendo setting;  
and  
means for generating a sequence of audible ring signals corresponding to the detected sequence of electrical ring signals, a first of said sequence of audible ring signals having a first volume and one or more subsequent audible ring signals having a volume that is greater than the first volume.

18. The apparatus of Claim 16, further comprising means for counting the number of detected electrical ring signals as the sequence of electrical signals arrives.

19. The apparatus of Claim 17, further comprising means for generating a volume control signal for each detected electrical ring signal, each volume control signal having a value dependent upon a count number associated with the detected electrical ring signal.